2. STAKEHOLDERS CRITERION

The SDUSD Chief Information and Technology Officer formed an educational technology planning team that included decision-makers representing the key departments within the district that will implement the plan. Planning Team members also assigned staff members from their departments to participate in planning meetings and provide information, research, data and input for the development of the Educational Technology Strategic Plan.

The Educational Technology Planning Team included the director and key staff from each of the district divisions. The Planning Team met regularly for over a year to develop the district's Educational Technology Strategic Plan. A central focus of the planning activity is the SDUSD "21st Century (i21) Interactive Classroom Initiative," a five-year phased plan to implement the significant investment in new educational technology in public schools approved by San Diego voters in November 2008. The approved "Proposition S" bond measure will provide over $42 million per year through 2014 for educational technology (and a total of $400 million over 15 years).

The i21 Initiative will provide teachers with a variety of digital tools to create curriculum materials that provide access, engagement and achievement to a diverse group of learners in the classroom. An i21 Steering Committee made up of 10 teachers and 12 principals developed the specifications for the technology tools to be adopted through the i21 Initiative. The i21 technology tools selected by the Steering Committee will allow the teacher to configure the learning environment according to the context of the student-centric work at hand to meet state standards and learn 21st century skills as thinkers, creators, designers and builders. The tools include:

1. An *Interactive Whiteboard* to provide students a multi-sensory experience;

2. A *Presentation Station* including the *Document Camera* and *Teacher's Multimedia Tablet Computer*;

3. *Classroom Audio Technology* including an HDTV tuner, DVD player/recorder and sound-field amplification wireless microphone system that allows the teacher and students to be clearly heard anywhere in the classroom; and

4. *Student computers (Netbooks):* Classrooms will be equipped with a one-to-one ratio for every 3rd-12th grade student. Features include software applications to create content; wireless access to the Internet; eReader for eBooks and eTextbooks with text to speech options; MP3/Podcasting software; a student response system built-in as Virtual Response software for formative assessment; and Web 2.0-based applications.

The Proposition S bond measure covers hardware and software only; it does not include funding for professional development for teachers to use that technology effectively in the curriculum. Therefore, SDUSD plans to utilize EETT and other district professional development funding to prepare teachers to integrate technology into the curriculum to expand student engagement and

21st century learning opportunities.

As part of the year-long Educational Technology planning process, each SDUSD division conducted extensive research and planning about the components of the Educational Technology Strategic Plan for which they would be responsible. The Educational Technology Planning Team reviewed the information provided by district divisions and departments for the development of the district's strategic plan. The divisions that participated, and the information they collected and provided, include:

- <u>Integrated Technology Support Services (ITSS)</u> Led by Chief Information & Technology Officer, Darryl LaGace, Integrated Technology Support Services (ITSS) is comprised of four primary teams (Information Technology, Software Applications, Educational Technology and Attendance) that directed work-group meetings to identify needs and provide recommendations for the effective development, management and support of instructional technology tools and resources, business and data systems, and network infrastructure to mange and support student learning. ITSS teams conducted extensive background planning sessions and provided information about the use of integrated information systems in both instruction and administration.

  o The Information Technology Team conducted extensive reviews of the technology capacity at each school, identified the hardware, software and broad-band connectivity needed at each school site to link it to the district information system, instructional applications and the Internet, and provided this information to the Educational Technology Planning Group.

  o The Educational Technology Team provided the coordination for all Educational Technology Planning Group meetings, surveys, and activities. The Director of Educational Technology and staff conducted face-to-face and online planning sessions with site teachers, students, staff and principals to develop the vision and goals for educational technology use in the district. The Educational Technology Resource Teachers, who work daily with site teachers, identified the specific technology hardware, software applications and connectivity applications that could benefit instruction. Its findings and conclusions were reported to the full Educational Planning Group and served as a foundation for the development of the Plan.

- <u>Instructional Services</u> The Deputy Superintendent and instructional support area leaders participated in work group meetings and held additional input and planning meetings within the division. These planning meetings included teachers from a range of schools, students, school principals and other administrators, and district professional development directors. Participants in these group planning sessions discussed the needs for educational technology at their schools and across the curriculum, how technology would best be incorporated into the curriculum, and how students and teachers alike could utilize technology in learning. The input from these meetings was organized and provided to the full Educational Technology Planning Group.

- Student Services. The Chief Student Services Officer and key staff participated in work-group meetings to identify instructional technology and business application needs in relation to special education, counseling, and student support services. The input from these meetings was organized and provided to the full Educational Technology Planning Group.

- Finance and Business Services. The Chief Financial Officer and his key staff participated in the work group meetings with staff, external experts and vendors to identify the business and data systems that could be implemented to support business services. Related information was used by the Educational Technology Planning Group to identify ways to integrate and leverage the development of the instructional and administrative applications of information technology.

- Facilities Planning. The Facilities Planning division has conducted all of the background reviews and planning needed to identify the physical infrastructure needed to accommodate the connectivity and Internet uses identified by Integrated Technology Support Services. The division has implemented and managed the construction and physical improvements to each school site identified.

- District Relations. The District Relations division staff participated in work-group meetings to identify technology needs in relation to communications, community relations, and Police Services. The input from these meetings was organized and provided to the full Educational Technology Planning Group.

- Chief School Improvement Officers. Identified School Improvement Elementary and Secondary Officers participated in work-group meetings to identify instructional and operational needs based upon district supervision of schools. The input from these meetings was organized and provided to the full Educational Technology Planning Group.

- Human Resources. The Chief Human Resources Officer and key staff participated in work group meetings to provide input on the efficacy of business and data systems used to manage personnel processes. The input from these meetings was organized and provided to the full Educational Technology Planning Group.

The Planning Team also obtained input from district stakeholders through meetings, work sessions and surveys. The stakeholders consulted included:

- *Students.* The Educational Technology Resource Teachers obtained input about the use of technology in school from students at the school sites. They followed up these conversations with student surveys designed to collect input from students regarding their technology use in school, at work, and at home. The planning group also reviewed the local and national results of student surveys conducted for the National Education Technology Plan to obtain additional input concerning students' use of technology in education and in their lives.

- *Parents.* District parent input was utilized in the development of the plan, utilizing the results of the Parent Survey. The Parent Survey collected their input about importance of a 21st Century Learning Environment for their child, the value of increased access to technology and the need maintain updated online curriculum and equipment.

- *Teachers.* Teachers were able to provide input to the development of the i21 Initiative and the Educational Technology Strategic Plan through online discussions and surveys, and Professional Development sessions with the Educational Technology Resource Teachers. Teachers also were encouraged to take the district Technology Survey, an online survey that collected input about technology use and needs from teachers, teachers' aides, site administrators and staff.

- *Administrators and staff.* Site principals and other administrators provide input to the technology plan through planning discussions in their Instruction Division meetings and at their schools, and by completing the District Technology Survey. Site Principals also were given the opportunity to review and comment on a draft of the plan before its submission. District office administrators and staff worked on the planning team activities and provided additional input through the Central Office Technology Survey, which collected input about their technology use and needs.

- *Community members.* Community members' input concerning the use of technology in elementary and secondary education was obtained through a community survey.

- *Board of Education:* Input regarding the strategic plan for technology was provided through the development of the Board Governance Policy Operational Expectations for the use of technology to support student learning.

In addition, a number of stakeholders volunteered to read and provide feedback to a draft of the Educational Technology Strategic Plan. Their comments and edits have been incorporated into the final version of the plan.

Implementation of the Plan. Each group of stakeholders will have an important role in the implementation of the Educational Technology Strategic Plan. Students will use the educational technology applications made available to them through the i21 Initiative and will provide their feedback about the technology integration. Students will be the catalysts of continuing development as they become more technologically savvy and their expectations for technology use in their learning increase. Parents will encourage student technology use by providing opportunities for their children to have access to information and communications technology, and encouraging them to learn about and use technology. Parents also will provide regular feedback through the monitoring and evaluation of the implementation of the plan.

Teachers will play a key role in implementing the strategic technology plan. As a primary strategy, the district's i21 Initiative will empower teachers to learn to utilize technology to enhance learning, and make the effort to apply these new skills in their teaching and instructional activities in upgraded 21st century learning environments rich with technology tools and resources. A group of teachers will be selected and trained to serve as i21 Lead Technology

Teachers. They will work with their colleagues at the school site to help them use the technology made available through the i21 Initiative and integrate it into their teaching and learning activities. All teachers will be asked to provide regular feedback through their Principals and through regular surveys conducted to monitor and evaluate this plan.

The site Principals and other administrators will coordinate and guide the implementation of the technology plan at their sites. They will help collect feedback from their teachers and staff, and will provide their own feedback and recommendations to the ongoing implementation of the plan. Community members will play an ongoing role in the implementation of the Technology Plan through their support of and participation in technology integration within the district. Local businesses and organizations have supported the development of learning opportunities for students and teachers, and will continue to work with district staff and teachers on technology integration in learning.

District administrators and other central office staff members will be responsible for the oversight, coordination and management of the Educational Technology Plan's implementation. The district will form the Educational Technology Strategic Plan (ETSP) Committee to oversee ongoing planning, implementation, monitoring and evaluation of the ETSP. Stakeholders groups will be represented on three subcommittees:

1. The Executive Subcommittee, which will include the leadership of key district divisions. The Executive Committee will be responsible for the oversight of the EETT formula grant program and the overall implementation of the ETSP.

2. The Implementation Subcommittee, which will consist of representatives of each of the key district departments participating in the implementation of the plan. This Committee group will review the implementation plans and their progress in achieving them on an ongoing basis. Committee members will coordinate the implementation activities to promote successful integration of technology into teaching and learning.

3. The Evaluation Subcommittee will review the data collected by the implementation committee and program staff to determine whether the ETSP is achieving its objectives and goals. The Evaluation Subcommittee will include representatives of the district divisions implementing the plan, other district administrators, teachers and staff, and students, parents and community members who accept the invitation to serve on the committee.

3. CURRICULUM COMPONENT CRITERIA

The mission of San Diego Unified Schools is to ensure *"All San Diego students will graduate with the skills, motivation, curiosity and resilience to succeed in their choice of college and career in order to lead and participate in the society of tomorrow"*. The SDUSD vision for technology is aligned with the district's overall mission:

> *The San Diego Unified School District demonstrates system-wide commitment to using technology effectively in a 21st century learning environment to improve student achievement, support teaching and learning, and prepare students to succeed in school and the workplace.*

Using an inclusive planning process, the SDUSD Educational Technology Planning Group identified decided that the Educational Technology Strategic Plan will focus on all SDUSD students in grades K-12. A key goal is for SDUSD students to achieve national technology standards by grade 8 as required by No Child Left Behind (NCLB). Therefore, several curriculum objectives focus on students in the middle school grades.

Several key strategies will be used to integrate technology, instructional software and online learning supports into all curricular areas so that students develop the 21st century information and communications technology skills that will support their learning and success in the working world. These key strategies include:

- The district will launch and implement the Integrated 21st Century (i21) Interactive Classroom Initiative as a primary strategy. Through the SDUSD i21 Interactive Classroom Initiative, the district has adopted a systemic approach to providing a 21st century learning environment that enables teachers to appropriately integrate technology into instruction in all curricular areas through a variety of interactive technologies and resources designed to be responsive to students' learning needs and incorporating Universal Design for Learning concepts as well as enable students to meet the NCLB requirement of being technologically proficient by grade 8. The 21st Century (i21) Initiative is an engaging interconnected learning environment designed to optimize student access and participation by integrating mobile computing, audio, visual and formative assessment technologies across the curriculum. The 21st Century (i21) Interactive Classroom Initiative is a multi phased five-year plan beginning July 1, 2009 that ultimately will provide classroom ratio of 1:1 computing in grades 3-12. It is anticipated that by the end of the 2015 school year, approximately 7,000 classrooms will have been updated, thus impacting teaching and learning for over 132,000 students and their teachers.

- The district will form a technology proficiency review group that includes representatives of Instructional Support Services, teachers, administrators, staff, and the Educational Technology Team. District will establish technology proficiencies for students, administrators, teachers and support staff to support the district mission of preparing students for college and career in order to lead and participate in the society of tomorrow. The goal is

to integrate district-defined technology proficiencies into staff development opportunities for all employees, providing the skills, tools and resources to support student learning.

- o <u>Proficiency for Students</u>: Students will be required to meet technology proficiencies by grade 8 and as required for the district high school computer literacy graduation requirement. The SDUSD technology proficiencies will be aligned to the California Department of Education (CDE) definition of Technology Literacy and the NETS for Students: They assess the student's ability to responsibly use appropriate technology to communicate, to solve problems, and to access, create, integrate, evaluate, and manage information to improve learning of state content standards in all subject areas and to acquire lifelong knowledge and skills in the 21st century. The SDUSD technology proficiencies will also support the NCLB Title II, Part D goal of technological literacy for all students by the end of grade eight by delineating the knowledge and skills students should acquire at each grade levels. The Instructional Support Services departments will ensure that all curriculum maps and guides incorporate strategies for technology integration. This will provide a clear roadmap for teachers to use as they provide opportunities for their students to use technology to support their learning.

- o <u>Proficiency for Teachers</u>: The Educational Technology Team will collaborate with the Steering Committee to review the district's technology proficiency standards to refine thelist of i21 technology proficiencies organized around the California state standards for technology usage and integration, as adopted by the California Commission on Teacher Credentialing, CTAP EdTechProfile and the NETS Standards for teachersProfessional development provided through the i21 initiative will be organized through a sequence of trainings, self-checks, and on-site support to enable teachers to attain identified proficiencies in order to integrate technology into teaching and learning.

- o <u>Proficiency for Support Staff</u>: District departments will collaborate to identify necessary training for the utilization of business and data applications required for the efficient day-to-day operations of district instructional and business processes. Training will be designed and implemented to support employees in building capacity to carry out their work.

- o <u>Proficiency for Administrators</u>: The Educational Technology Team in collaboration with the area superintendents team will identify i21 technology proficiencies that are organized around the areas of leadership, teaching and learning, assessment/data-driven decision-making, and operations as defined in the NETS for Administrators and *Partnership for 21st Century Skills*. Professional development will be integrated into monthly instructional conferences and operations meetings to build capacity in site and district leadership to lead, model and evaluate the integration of i21 technology to transform teaching and learning.

- The district area superintendent of curriculum, site teachers and administrators, and the Integrated Technology Support Services Department will collaboratively review and

recommend software and online tools that can be used to support learning for students who are below grade level in literacy or in math, and for students who need assistance developing English language proficiency. This software will help enable these children to gain the academic foundations they need for their future academic achievement.

- The district will identify key teachers who are academic leaders at the school sites, and will train them to serve as i21 Lead Technology Teachers to help build the technology use and integration capacity of the teachers at their school site. These digital learning Lead Technology Teachers will serve as mentors and coaches to other site teachers to support their integration of technology into the curriculum and resulting student achievement.

- The Educational Technology Team will provide intensive training and professional development support to all district teachers through the district's i21 Initiative in order to prepare teachers to use the technology tools and resources designed into their school classrooms and to integrate technology into their teaching to support student learning. Additionally, every professional development opportunity offered in the district will contain a thread on the use of 21st century classroom tools and resources within the context of the instructional area.

- The Educational Technology Team will work closely with the Beginning Teacher Support and Assessment (BTSA) induction program to help prepare new teachers to utilize effective technology in their content area to support student learning with the tools and resources of the i21 classroom, and for their own professional development. Participating teachers receive on-site support from a trained peer coach/support provider. Additional support comes in the form or coursework and monthly professional development academies and online support.

The BTSA program's Technology course is designed to meet technology requirements for obtaining a Professional Clear Credential. The BTSA Technology course helps prepare new teachers to utilize effective technology in their content area for students and for their own professional development. The course objectives include having each participating teacher able to: communicate with professional colleagues through a variety of online media; access, discriminate, use and reference information from a variety of online databases; teach an inquiry curriculum based lesson to their students using technology as a presentation tool; teach their students how to access, discriminate, use and reference information from a variety of online databases; access, manipulate, evaluate and use to inform instruction their school-provide student data; and use computer-based programs to grade, evaluate and guide their instruction. The San Diego Board of Education is considering changes to the BTSA program as part of its cost-cutting strategies in response to the current budget crisis; the strategy described here may change in response to Board decisions.

3.a. Description of teachers' and students' current access to technology tools both during the school day and outside of school hours.

The district's elementary, middle and high schools have different levels of access to computers, as noted in Table 1 below. In general, elementary schools have a higher student-to-computer ratio than do middle schools or high schools. More computers are in classrooms at the elementary level; in middle schools and high schools more are found in computer labs. Elementary schools are less likely to have Internet access on most of their computers, and their computers are more likely to be over three years old.

TABLE 1: ACCESS TO COMPUTERS

	Elementary Schools	Middle Schools	High Schools
Average ratio of students to computers[1]	4.19	2.39	3.58
Percent of computers in classrooms[2]	71%	49%	55%
Percent of computers in labs[2]	13%	23%	27%
Percent of computers in library[2]	6%	8%	5%
Percent of computers in carts[2]	4%	16%	11%
Percent of computers with Internet access[2]	81%	96%	97%
Percent of computers under 3 years old[2]	30.9%	44.6%	32.5%
Percent of computers 3-4 years old[2]	16.6%	21.0%	21.8%
Percent of computers over 4 years old[2]	43.2%	34.0%	47.0%

Source: [1]SDUSD data reported to the California Department of Education, 2008-2009; [2]State Technology Survey 2007.

Most teachers (95%) reported that they have access to a computer at home, and 74% reported that they regularly use their computer at home for work-related activities (another 20% occasionally use their computer at home for work). Over two-thirds (70%) of teachers reported that they regularly access the Internet at home for work-related use (91% of teachers reported that they have Internet access at home).

Some schools offer access to technology tools for teachers and students to use at home. High schools are more likely than middle schools or elementary schools to provide faculty email and Internet access at home, or to provide computers for staff to use at home. High schools also are the most likely to report using technology to improve communications between school and home, with over 93% doing so.

3.b. Description of the district's current use of hardware and software to support teaching and learning.

Teachers report their use of technology resources to support teaching and learning on the Technology Use component of the annual EdTechProfile survey. The tables below are taken from that survey, and describe the typical frequency and type of use of hardware and software to support teaching and learning. Of the teachers who responded to the survey, 20% had one to three years of teaching experience, 28% had four to eight years of teaching experience, 21% had nine to fifteen years, and 32% had over sixteen years of teaching experience.

Table 3 reports how often teachers use the following technology tools for classroom management. As can be seen from the table, teachers are most likely to use computers, Internet access and email on a daily or weekly basis for classroom management. They are much less likely to use hand-held electronic devices as they are not available.

TABLE 3. USE OF TECHNOLOGY TOOLS FOR CLASSROOM MANAGEMENT

Technology Tool	Daily	2-4 days a week	Between Once a Week and Monthly	Less than Monthly	Never Use It	Not Available
Computers and peripherals (scanner, printer)	76%	13%	5%	2%	2%	1%
Internet	75%	12%	6%	3%	4%	1%
Email	80%	9%	4%	3%	3%	1%
Hand-held electronic devices (PDA, GPS, heart monitor, etc.)	10%	5%	6%	6%	6%	67%

Source: SDUSD EdTechProfile 2008

Table 4 below reports how often teachers use technology tools for classroom instruction. Teachers are somewhat more likely to use computers, the Internet and email for classroom management than they are for classroom instruction.

11

TABLE 4. USE OF TECHNOLOGY TOOLS FOR CLASSROOM INSTRUCTION

Technology Tool	Daily	2-4 days a week	Between Once a Week and Monthly	Less than Monthly	Never Use It	Not Available
Computers and peripherals (scanner, printer)	56%	21%	6%	5%	4%	4%
Video based presentation devices (VCR/DVD, laser disc player, LCD projector)	33%	18%	23%	13%	6%	6%
Video based creation tools (video camera, digital camera)	9%	9%	22%	22%	17%	19%
Internet	40%	20%	19%	10%	8%	3%
Email	43%	12%	11%	10%	19%	5%
Hand-held electronic devices (PDA, GPS, heart monitor, etc.)	5%	4%	5%	7%	9%	70%

Source: SDUSD EdTechProfile 2008

Table 5 presents the ways that teachers use technology tools (computers, video, Internet, and hand-held devices) at their school. Teachers are most likely to use technology tools to communicate with colleagues, manage student grades and attendance, and create instructional materials.

TABLE 5. USES OF TECHNOLOGY TOOLS

Use of Technology Tools	Daily	2-4 days a week	Between Once a Week and Monthly	Less than Monthly	Never
Create instructional materials	37%	32%	18%	7%	5%
Deliver classroom instruction	35%	24%	17%	11%	13%
Manage student grades and attendance	68%	8%	7%	5%	12%
Communicate with colleagues	66%	18%	9%	4%	3%
Communicate with parents or students	30%	24%	22%	10%	15%
Gather information for planning lessons	31%	32%	23%	9%	5%
Access model lesson plans and best practices	20%	23%	29%	16%	10%

Source: SDUSD EdTechProfile 2008

About three-quarter of teachers (72%) reported that they have access to an electronic student information system, but only 23 percent (23%) reported that they use an electronic student information system to make decisions in lesson design and implementation to improve student academic achievement.

Table 6 reports the frequency with which teachers use technology tools for instruction in different subject areas. Language Arts and Math teachers use technology tools the most frequently for instruction. The majority of teachers reported that they never use technology tools (or that they are not applicable) in most subjects.

TABLE 6. USE OF TECHNOLOGY TOOLS IN INSTRUCTION, BY SUBJECT

Subject Area	Daily	2-4 days a week	Between Once a Week and Monthly	Less than Monthly	Never	Not Applicable
Reading and Language Arts	28%	19%	15%	6%	6%	25%
Mathematics	19%	16%	14%	8%	10%	33%
Science	10%	15%	19%	10%	10%	37%
History/Social Science	10%	14%	19%	11%	11%	35%
PE/Health	3%	4%	10%	13%	22%	48%
Fine Arts	4%	5%	13%	13%	17%	48%
Business/Computer Science	3%	3%	4%	4%	17%	69%
Foreign Language	2%	2%	3%	3%	17%	73%
Home Economics	1%	1%	2%	2%	17%	77%
Industrial Arts	1%	1%	2%	2%	17%	77%
Careers	3%	2%	4%	5%	15%	70%

Source: SDUSD EdTechProfile 2008

Teachers are most likely to assign classroom activities that require their students to use include computers and peripherals, followed by the Internet. However, a sizable proportion of teachers never use technology tools or report that they are not available, as indicated in Table 7 below.

13

TABLE 7. TEACHERS' CLASSROOM ASSIGNMENTS REQUIRE STUDENTS TO USE TECHNOLOGY TOOLS

Technology Tool	Daily	2-4 days a week	Between Once a Week and Monthly	Less than Monthly	Never Use It	Not Available
Computers and peripherals (scanner, printer)	18%	19%	24%	16%	13%	11%
Video based presentation devices (VCR/DVD, laser disc player, LCD projector)	12%	10%	18%	19%	20%	20%
Video based creation tools (video camera, digital camera)	4%	4%	11%	20%	29%	32%
Internet	15%	15%	22%	17%	19%	12%
Email	11%	7%	11%	14%	33%	25%
Hand-held electronic	3%	2%	3%	6%	15%	72%

Source: SDUSD EdTechProfile 2008

Table 8 shows that word processing is the most frequently assigned use of technology. However, a large proportion of teachers never assign work that involves using technology tools (such as computers, video, Internet, and hand-held devices).

TABLE 8. FREQUENCY OF ASSIGNMENTS USING TECHNOLOGY TOOLS

Use of Technology Tools	Daily	2-4 days a week	Between Once a Week and Monthly	Less than Monthly	Never
Word processing	9%	16%	28%	18%	30%
Reinforcement and practice	13%	18%	22%	15%	32%
Research, using the Internet or CD-ROMs	6%	13%	29%	21%	30%
Creating reports or projects	5%	6%	30%	24%	32%
Demonstrations or simulations	4%	8%	19%	20%	49%
Email/Internet correspondence with experts, other students	3%	4%	10%	20%	64%
Solving problems or analyzing data	5%	8%	15%	19%	53%
Graphically presenting information	4%	6%	16%	21%	53%

Source: SDUSD EdTechProfile 2008

Students are most likely to use technology tools (including computers, video, Internet, and hand-held devices) for their classroom assignments in the classroom or other instructional area (43%), followed by the computer lab (29%) or library media center (28%).

As Table 9 illustrates, at present most teachers never use technology tools to support and improve communication between the school and students' homes. Many of these technology tools are not readily available within the district.

TABLE 9. TEACHERS' USE OF TECHNOLOGY TOOLS FOR HOME/SCHOOL COMMUNICATION

Technology Tool	Daily	2-4 days a week	Between Once a Week and Monthly	Less than Monthly	Never
Voice Mail	24%	18%	17%	10%	31%
School web site with class related information, such as assignments, grades, parental information, etc.	24%	11%	14%	12%	38%
Video conferencing	1%	1%	2%	4%	92%
Electronic grading system	27%	10%	11%	12%	40%
Online student assessments	6%	6%	13%	13%	63%

Source: SDUSD EdTechProfile 2008

3.c. Summary of the district's curricular goals that are supported by this tech plan.

San Diego Unified School District has adopted the state content standards in all subjects as the basis of all curriculum and instruction. Research-based programs and strategies that enable students to succeed in meeting standards (as described in Criterion 9b) drive the implementation of the standards and the curricular goals in the district. The district utilizes a system for assessing student progress and improving or changing programs until all students are reached effectively. Each content area has developed a systemic K-12 approach and detailed strategies for implementation across grade levels, subject areas, and schools. The effective utilization and integration of educational technology is essential in helping students at all levels to succeed in meeting standards. This Educational Technology Strategic Plan focuses on integrating technology systemically into the K-12 curriculum.

The district's curriculum goals are directed toward providing for all students the highest quality teaching, the richest learning environment, and sufficient time to meet high standards. The district curriculum goals include:

1. High Expectations for All Students: Through broad commitments to well-defined curriculum, content standards, and technology access, we will raise the expectations for achievement for all children, including low performing students.

2. Districtwide Strategies to Prevent School Failure: Through professional development that includes direct training, classroom coaching, and collegial reflection, our teachers will deepen their knowledge and expertise in conveying the curriculum, and all students in their classrooms will benefit from improved instruction.

3. Intervention Strategies to Assist Students Who Are Struggling: SDUSD is implementing a Response-to-Intervention (RTI) model in which early identification, parent involvement, and appropriate tiered support will provide literacy and mathematics strategies and other academic programs within and beyond the instructional day and year.

4. Retention and Support Strategies to Accelerate the Learning of Students Who Have Fallen Behind: Through a program of accelerated study and extended learning time at key grade levels, students who are significantly below grade level will have the opportunity to catch up with their peers early in their school careers.

5. Leadership Strategies to Ensure Academic Success in Every Classroom: Through ongoing leadership development of principals, vice principals, subject supervisors, and district curriculum directors, progress toward the goals will be directed and sustained at every school.

Implementation of the district's Educational Technology Strategic Plan will support the achievement of these curriculum goals by making technology available and training teachers to utilize it to improve instruction, provide academic support for students who are struggling, offering opportunities to accelerate learning for students who have fallen behind, and to facilitate the communications needed for successful leadership.

Academic Content Standards, District Curriculum Frameworks, and Programs of Study

The district has adopted the California Department of Education's (CDE) Content Standards in English language arts, mathematics, history-social science, science, visual and performing arts, and English language development. For subject areas not yet covered by the statewide Standards, including physical education and world languages, the district's Standards, Assessment and Accountability Division has worked with curriculum experts, school personnel, parents and community members to develop content standards aligned with state frameworks.

The state standards are used as the written curricula that describe for teachers what students must know and be able to do in each subject. district curriculum, student level assessment, textbooks, instructional materials and professional development activities are all aligned with the standards. Content standards may be accessed through the state (CDE) and district websites, so they are accessible to parent and community members, as well as teachers and students. High quality instructional materials and intensive professional development are the tools that enable teachers to teach to the state standards.

Comprehensive literacy and mathematics frameworks provide a consistent set of strategies, knowledge, and skills across all classrooms. The frameworks are designed to ensure that all

students get high quality instruction and content that will enable them to meet designated criteria and be successful in school. Research-driven, standards-based Literacy and Mathematics Frameworks guide teachers and principals toward effective instruction and curriculum implementation.

The effective use of enhanced instruction and extended learning time within and beyond the school day for literacy and mathematics at the entry grades means that students are more likely to meet grade level standards and therefore will be more likely to pass successfully to the next grade. The emphasis on competency in literacy and mathematics provides students with the academic preparation they need to be successful in all their studies, pass the High School Exit Exam, and compete for desirable post-secondary education and employment opportunities. Curriculum materials that integrate technology and enable teachers and students to meet and exceed state standards are being phased through the i21 Initiative.

Literacy. The emphasis is on ensuring that all elementary students are reading at grade level by the end of the third grade, and all secondary students get extra support in sixth and ninth grades. The district Literacy Framework is aligned to state frameworks and district standards. The Literacy Framework provides a comprehensive, balanced approach to literacy that gives students the skills they need to be successful in school.

The elements of the framework that address reading include reading aloud, shared reading, guided reading, independent reading, phonemic awareness, and systematic, explicit phonics. The elements of the framework that address writing include modeled writing, shared writing, guided writing, and independent writing. Technology may be integrated into the literacy curriculum through its use to support reading, writing and research with computer applications and tools for accessing, organizing and presenting text and information.

The elements of the framework form the basis for instruction that provides all students with the research-based knowledge and skills used by the most fluent readers and writers. The elements build on one another in a logical progression that allows student to undertake increasingly difficult reading and writing tasks as the move up through the grades. The pedagogical approach uses the Readers' and Writers' Workshop models in which students work in collaborative groups to decode and discuss text and produce written work. Teachers help students use educational technology to produce and present their written materials. The outcome of using the Literacy Framework is that students can utilize their reading and writing abilities to access a wide range of texts for work, study, and enjoyment.

Mathematics. The focus on mathematics learning revolves around the expectation that all students learn algebra in order to be competitive for jobs in the expanding technology-based sector of the economy. In the past algebra has been a gatekeeper course that often was withheld from economically disadvantaged and traditionally underrepresented students and prevented them from being prepared for college and technical careers.

San Diego Unified School District has made a commitment to removing the barriers to traditionally college-preparatory mathematics courses and helping all students achieve success at

a high level of mathematics fluency and understanding. The district goals for mathematics include:

- All students are to learn and achieve at or above grade level in mathematics as reflected on multiple assessments. Prevention, intervention, and retention programs will support students so that they can reach this level of achievement.

- All students are to have consistent high quality learning opportunities in mathematics provided by qualified teachers, and grounded in standards-based frameworks, curriculum materials, and assessments.

- All teachers of mathematics are to be engaged in ongoing learning that supports instruction based on the district and state framework—including professional development, university-based content study, and conceptually based pedagogy programs.

- Administrators at each school are to learn to recognize effective mathematics and curriculum instruction and oversee and support its implementation.

- Technology is to be used to support learning and teaching in mathematics with teachers and students who can use technology tools and applications to demonstrate concepts, collect and analyze data, acquire knowledge and skills, and access and organize information resources. Computer applications and graphing calculators provide concrete visual images and representations for mathematical concepts and tools for data organization and analysis.

Science. The State of California Science Framework/Standards document is used to guide science instruction. New curriculum materials have been adopted each year in science that are aligned with the standards and that provide students a range of learning opportunities. A required course sequence has been adopted for all students in high school consisting of physics, chemistry, and biology. Technology is integrated in all grade levels as a tool for conducting research, collecting data, and forming analyses. Curriculum maps for science have been developed and are available online at http://prod031.sandi.net/science.

Social Studies. The district's social studies curriculum is aligned with the California State History-Social Science Framework and Content Standards. Teachers are encouraged to develop units of study around grade level standards that will allow their students to access the content and develop a deep understanding of history-social science. Content may be accessed and studies using educational technology tools, including the Internet. The goals of the social studies curriculum include knowledge and cultural understanding, democratic understanding and civic values, and skills attainment and social participation. Five areas are emphasized in the social studies curriculum: historical comprehension; geographical and economic literacy; historical research, analysis and interpretations; historical issues – analysis and decision-making; and civics and government. Technology may be integrated into the social studies curriculum through its use to support reading, writing and research with computer applications and tools for accessing, organizing and presenting text and information.

3.d. List of clear goals, measurable objectives, annual benchmarks, and an implementation plan for using technology to improve teaching and learning by supporting the district curricular goals.

The SDUSD Educational Technology Strategic Plan focuses its efforts systemically (K-12) to meet No Child Left Behind standards.

> Goal 3.d.1. Teachers will appropriately integrate technology into instruction in all curricular areas, using a variety of technologies to support the needs of all students.

Objective 3.d.1.1   By 6/2015, 100% of district curriculum guides and maps will include written strategies for technology integration.

Activities	Responsible Parties	Timeline
Review current curriculum guides and maps for technology integration.	Curriculum Area Sup; resource teachers; teachers and administrators	7/2010 – 6/2011
Revise current curriculum guides and maps to integrate technology and include written strategies for curriculum integration.	Content area resource teachers and curriculum directors;	7/2010 – 6/2011
Develop new curriculum guides and maps, ensuring that they include written strategies to integrate technology into the curriculum.	Curriculum Area Sup and resource teachers; teachers and administrators	7/2011– 6/2012 for math and science 7/2012-6/2013 for literacy and social studies
Implement the technology-integrated curriculum, focusing first on math and science and then on literacy and social studies courses.	Teachers, resource teachers, administrators	9/2010 – 6/2015, then annually with quarterly reviews

Benchmarks:
- By 6/2011, 20% of district curriculum guides and maps will include written strategies for technology integration as measured by reviews of the curriculum guides and maps to identify whether they include written strategies for technology integration.

- By 6/2012, 40% of district curriculum guides and maps will include written strategies for technology integration as measured by reviews of the curriculum guides and maps to identify whether they include written strategies for technology integration.

- By 6/2013, 60% of district curriculum guides and maps will include written strategies for technology integration as measured by reviews of the curriculum guides and maps to identify whether they include written strategies for technology integration.

- By 6/2014, 80% of district curriculum guides and maps will include written strategies for technology integration as measured by reviews of the curriculum guides and maps to identify whether they include written strategies for technology integration.

- By 6/2015, 100% of district curriculum guides and maps will include written strategies for technology integration as measured by reviews of the curriculum guides and maps to identify whether they include written strategies for technology integration.

Target Group:
Target groups for this objective are the teachers and administrators who are participating in the development and review of district curriculum guides and maps, and the students who learn using the integrated technology strategies.

Process for Monitoring:
The Evaluation subcommittee of the Educational Technology Strategic Plan (ETSP) Committee (see page 5, stakeholders) will review reports from the Education Technology Dept. staff that summarize reviews of the district's curriculum guides and maps to determine how many appropriately integrate technology into the curriculum and include written strategies for technology integration. The Evaluation subcommittee will review briefing reports from the Integrated Technology Support Services Department at its quarterly meetings, and will conduct an annual summary review of all activities under each objective to ensure that they have been completed on time, and that the benchmarks identified have been achieved. The Evaluation subcommittee will report its findings to the full ETSP Committee.

Objective 3.d.1.2. **By 6/2015, 80% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas.**

Activities	Responsible Parties	Timeline
Identify teacher(s) at i21 sites to serve as Lead Technology Teachers; train the i21 Lead Technology Teachers to help other site teachers integrate technology into their teaching, through demonstrations of teaching, workshops and guided implementation. i21 Lead Technology Teachers work with other teachers at their sites to model the integration of technology into teaching and learning, and to help teachers integrate technology into their teaching.	Ed Tech Resource Teachers, site administrators	8/2010-12/2010 For training; 1/2011 – 6/2011 for coaching and modeling, repeated annually
Teachers integrate technology into their teaching, as modeled by the Lead Technology Teacher and professional development activities. Technology integration activities for students may include using the Internet to research and share information; using technology skills to present, publish and share results of their work; using simulations and applications to enhance higher learning skills.	Teachers Site administrators, i21 Lead Technology Teachers	1/2011-6/2011, then ongoing through 2015, with regular review and evaluation
Review *District Competencies for Technology Proficiency* for specific skills standards for technology at each grade level of the i21 implementation.Identify methods to assess student proficiency in meeting established technology standards.	Education Technology staff, site administrators and teachers	7/2010-6/2013
Assess student's proficiency in meeting the established technology standards for each targeted grade.	CITO, Ed Tech Director, site administrators and teachers, Education Technology staff, Teachers, site administrators	1/2011–6/2011 7/2011-6/2012 Annually, with regular review and evaluation

21

Benchmarks:
- By 6/2011, 20% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas, as measured by the specific assessments conducted for each targeted grade.

- By 6/2012, 30% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas, as measured by the specific assessments conducted for each targeted grade.

- By 6/2013, 45% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas, as measured by the specific assessments conducted for each targeted grade.

- By 6/2014, 60% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas as measured by the specific assessments conducted for each targeted grade.

- By 6/2015, 80% of all students will demonstrate the ability to utilize grade-level appropriate computer skills and information and communications applications to research and present their work in core content areas as measured by the specific assessments conducted for each targeted grade.

Target Group:
The target groups for this objective include students, teachers and site instruction leaders. Key participants include the i21 Lead Technology Teachers and i21teachers, Ed Tech Resource Teachers and administrators.

Process for Monitoring:
The ETSP Evaluation subcommittee will review reports from the Education Technology Dept. staff that summarize Technology Use Survey results, reports from the i21teachers, Education Technology staff and area superintendents concerning the effectiveness of the implementation of the Lead Technology Teacher program. The Evaluation subcommittee also will review reports from the Educational Technology Department staff that summarize data on the assessed proficiency of students at meeting the established technology standards for identified grade levels, as measured by the specific assessments conducted for each targeted grade. The Evaluation subcommittee will conduct a summary review of all activities under this objective to ensure that they have been completed on time, and that the benchmarks identified have been achieved. The Evaluation subcommittee will report its findings to the ETSP Committee.

Goal 3.d.2. Schools will provide quality instructional hardware, software and online learning supports to address the specific needs of identified groups of students who have been targeted for additional learning support.

Objective 3.d.2.1. By 6/2015, all district schools will provide their students with instructional technology, including hardware, software and online learning tools that provides access to rich content resources and is aligned to academic content standards.

Activities	Responsible Parties	Timeline
Evaluate existing and proposed instructional software and online learning tools for quality of resources and alignment to state and district content standards.	CITO, Ed Tech Director, Program Manager Online Learning, resource teachers, site admin, site teachers, Instructional Media Center staff, area superintendents	7/2010-2/2011, then ongoing through 6/2015
Evaluate existing and proposed instructional software and online learning tools for technical feasibility, support requirements, and cost and benefit; advise site administrators.	CITO, Ed Tech Director, Program Manager Online Learning, resource teachers, Site admin, technical support staff, area superintendents	7/2010-4/2011, then ongoing through 6/2015
Select the optimal products and resources for their schools, based on student achievement information and input from district instructional and technical support staff.	CITO, Ed Tech Director, Program Manager Online Learning, resource teachers, Curriculum specialist, Site admin, Area superintendents	4/2011-8/2011, then ongoing through 6/2015
Install software and links to online learning resources and materials. Increase high speed bandwidth to 100-500 MB for all district sites.	ITSS Technical support staff, site administrators and teachers	7/2011-6/2012 Then ongoing
Organize instructional schedules to facilitate student access to instructional resources.	School site administrators	11/2010–1/2011 Repeated sem. through 6/2015
Students utilize instructional technology to access rich content resources aligned with academic content standards. Technology to be utilized may include mobile computers, Internet access, word processing, spreadsheet, and academic subject-specific software applications.	Teachers, site administrators	9/2011 – 6/2012 Then ongoing through 6/2015

Benchmarks:
- By 6/2011, 40% of district schools will provide their students with instructional technology, including hardware, software and online learning tools, that provides access to rich content resources and are aligned to academic content standards. Student access to instructional technology will be measured through annual school site reports and inventories, and data reported to the State Technology Survey (if operating).

- By 6/2012, 50% of district schools will provide their students with instructional technology, including hardware, software and online learning tools, that provides access to rich content resources and are aligned to academic content standards. Student access to instructional technology will be measured through annual school site reports and inventories, and data reported to the State Technology Survey.

- By 6/2013, 65% of district schools will provide their students with instructional technology, including hardware, software and online learning tools, that provides access to rich content resources and are aligned to academic content standards. Student access to instructional technology will be measured through annual school site reports and inventories, and data reported to the State Technology Survey.

- By 6/2014, 80% of district schools will provide their students with instructional technology, including hardware, software and online learning tools, that provides access to rich content resources and are aligned to academic content standards. Student access to instructional technology will be measured through annual school site reports and inventories, and data reported to the State Technology Survey.

- By 6/2015, 100% of district schools will provide to their teachers instructional technology, including hardware, software and online learning tools, that provides access to rich content resources and are aligned to academic content standards. Student access to instructional technology will be measured through annual school site reports and inventories, and data reported to the State Technology Survey.

Target Group:
The target group for this objective is students, their teachers and site administrators.

Process for Monitoring:
The ETSP Evaluation subcommittee will review reports from the Education Technology Dept. staff that summarize annual site reports and inventories of technology hardware and software acquired, plus the site technology data reported to the State Technology Survey. The Evaluation subcommittee will review the briefing reports provided by the Education Technology Dept. on a quarterly basis, and will then review the annual site reports and inventories at their summary evaluation meeting to be held each summer, at which time they will evaluate the achievement of annual benchmarks for providing technology tools to students. The Evaluation Committee will then forward its findings to the full ETSP committee.

Objective 3.d.2.2.   By 6/2015, all district schools will acquire and implement the use of software and online learning tools designed to assist students who are not yet proficient in grade-level standards in reading, writing and mathematics.

Activities	Responsible Parties	Timeline
Evaluate existing and proposed instructional software and online learning tools designed to assist students who are below grade level in reading, writing and/or math, for quality of resources and alignment to state and district content standards	Area superintendents, site administrators, resource teachers, site teachers, Program Manager Online Learning, CITO and Ed Tech Director	7/2010-2/2011, then ongoing as needed through 6/2015
Evaluate existing and proposed instructional software and online learning tools designed to assist students who are below grade level in reading, writing and/or math, for technical feasibility, support requirements, and cost and benefit; advise site administrators.	Program Manager Online Learning, Ed Tech resource teachers, district technical support staff, teachers, CITO	8/2010-4/2011, then ongoing through 6/2015
Select the optimal products and resources designed to assist students who are achieving below grade level, based on student achievement information and input from district instructional and technical support staff.	Site admin, Area Sups, resource teachers, i21 Lead Teachers, teachers	4/2011-6/2011, then ongoing review each year through 6/2015
Install software and links to online learning resources and materials (such as ProQuest, Thomson Gale, MyAccess). Increase high speed bandwidth to 100-500 MB for all district sites.	ITSS district technical support staff, Ed Tech staff	5/2011-8/2011 Then repeated as needed
Organize instructional schedules to facilitate student access to instructional resources.	School site administrators, with input from teachers and i21 Lead Technology Teachers	12/2010–1/2011, then ongoing each semester through 6/2015
Students utilize the online learning and other instructional resources provided to help them develop their reading, writing and mathematics proficiency.	Teachers; site administrators; i21 Lead Technology Teachers	1/2011 – 6/2011 then ongoing annually

Benchmarks:
- By 6/2011, 40% of district schools will acquire and implement software and online learning tools designed to assist students who are not yet proficient in grade-level standards in reading, writing and/or mathematics. Student access to the instructional resources will be measured through annual school site reports and inventories, and data reported to the State Technology Survey.

- By 6/2012, 50% of district schools will acquire and implement software and online learning tools designed to assist students who are not yet proficient in grade-level standards in reading, writing and/or mathematics. Student access to the instructional resources will be measured through annual school site reports and inventories, and data reported to the State Technology Survey.

- By 6/2013, 60% of district schools will acquire and implement software and online learning tools designed to assist students who are not yet proficient in grade-level standards in reading, writing and/or mathematics. Student access to the instructional resources will be measured through annual school site reports and inventories, and data reported to the State Technology Survey.

- By 6/2014, 80% of district schools will acquire and implement software and online learning tools designed to assist students who are not yet proficient in grade-level standards in reading, writing and/or mathematics. Student access to the instructional resources will be measured through annual school site reports and inventories, and data reported to the State Technology Survey.

- By 6/2015, 100% of district schools will acquire and implement software and online learning tools designed to assist students who are not yet proficient in grade-level standards in reading, writing and/or mathematics. Student access to the instructional resources will be measured through annual school site reports and inventories, and data reported to the State Technology Survey.

Target Group:
The target groups for this activity include students who are not yet proficient in grade-level standards in reading, writing and/or mathematics, teachers who teach reading, math and related subjects, and their site administrators.

Process for Monitoring:
The ETSP Evaluation subcommittee will review reports from the Integrated Technology Support Services Department staff that summarize school and district reports (submitted at the end of each year) concerning the software and online learning tools that have been acquired and implemented. The Educational Technology Dept. will summarize the annual site technology data reported to the State Technology Survey each year. Each summer the Evaluation subcommittee will review the end-of-year data and the annual State Technology Survey results to assess the achievement of annual benchmarks for implementing technology tools designed to assist students who are reading below grade level. The Evaluation subcommittee will report its findings to the ETSP Committee.